

REMARKS

Claims 1, 3-25 and 29-37 are pending in this application. By way of this amendment, claims 2 and 26-28 have been canceled, without prejudice. New claims 34-37 have been added.

The Office Action rejected previously-presented claims 1-29 and 31-33 as follows:

2. Claim 1-29 and 31-33 rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. (US Pub. 2003/0076849) in view of Matsuo et al. (US Pub. 2003/0227925).

The Office Action rejected previously-presented claim 30 as follows:

3. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Morgan et al. in view of Matsuo et al. as applied to claim 29 above, and further in view of Jenne et al. (US Pub. 2003/0126223).

These rejections are respectfully traversed, for reasons including those set forth in Amendment C and those set forth herein. Morgan does pertain to a queue allocation mechanism that classifies packets and stores them in queues. However, each queue in Morgan apparently is created at a specific egress port (“at a destination associated with an output where the packet is to be forwarded”):

[0037] The queue mapper 124 receives the queue request and identifies or dynamically creates at a destination associated with an output where the packet is to be forwarded, a queue for storing the packet. The destination may be a single physical egress port or multiple physical egress ports treated as a single logical port for sharing common egress queues. Hereinafter, references to a port shall be deemed to mean either a physical port or a logical port with multiple physical ports.

During its lifetime, the queue appears to be closely associated with its egress port and may be constrained by the amount of resources available to its egress port:

[0047] In attempting to create a new queue on a particular egress port, the queue management module **200** determines whether enough resources are available to the port based on the port information obtained from the port manager **110**. If a queue cannot be created because of resource limitation, such as for example, limits on the reserved bandwidth and/or the number of queues that may be created for a particular egress port, the queue management module **200** attempts to de-allocate queues of lower priority created on the port. If

As understood, Morgan simply does not teach the allocation of queues at an ingress port. Although Applicants' attorney has amended the pending independent claims in order to expedite prosecution of this application, Applicants' attorney reserves the right to pursue claims similar to those presented in Amendment C at a future time.

The independent claims have been amended to recite other features that are not taught by the art relied upon. Claim 1 has been amended to recite:

storing control information relating to the packet in the allocated queue;
saving packet payload information in a different location from that of the allocated
queue;

Independent claims 11 and 22 have been amended in a similar fashion. Independent claim 23 and new independent claim 34 have been amended in a slightly different manner. For example, claim 23 now recites:

~~and further configured to store~~ control information relating to the packet in the allocated queue;
save other packet information in a different location from that of the allocated
queue;

Support for these amendments and new claims may be found in various parts of the application as filed, including but not limited to the following part of the specification:

After the classification step, control information for each packet is assigned to a different one of the queues in array 240. Each of the queues in array 240 may be, e.g., a first-in, first-out (“FIFO”) buffer of a microprocessor (e.g., an ASIC). In this example, control information 206 for packet 205 is stored at the head of queue 255. Control information 216 for packet 215 is also stored in queue 255. Control information 211 for packet 210 is stored at the head of queue 250.

However, other packet information (e.g., the payload) that may require significantly more memory can be stored in data memory 230. Data memory 230 may reside, for example, in an off-chip memory such as an SRAM, a DRAM, etc. Pointers to the packet information stored in memory 230 are stored in array 240 or in memory associated with array 240. One such implementation is described below with reference to Fig. 3. In this way, the storage requirements for the buffers in array 240 are reduced.

(Specification at p. 10, lines 12-31.)

New dependent claims 35-37 recite some of these specific examples of storing information other than control information in a memory other than that corresponding with a queue containing packet control information.

It is respectfully submitted that the current amendments and new claims yet further distinguish the art relied upon and that all pending claims are allowable.

CONCLUSION

Applicants believe that all pending claims are allowable and respectfully request a Notice of Allowance for this application from the Examiner. *If the Examiner believes that there are any issues remaining for discussion before a Notice of Allowance can be issued, Applicants' attorney requests that the Examiner contact him at the telephone number indicated below to schedule a telephonic interview.*

The Commissioner is hereby authorized to charge any additional fees, including any extension fees, which may be required or credit any overpayment directly to the account of the undersigned, Deposit Account 50-4480 (Order No. ANDIP035).

Respectfully submitted,
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